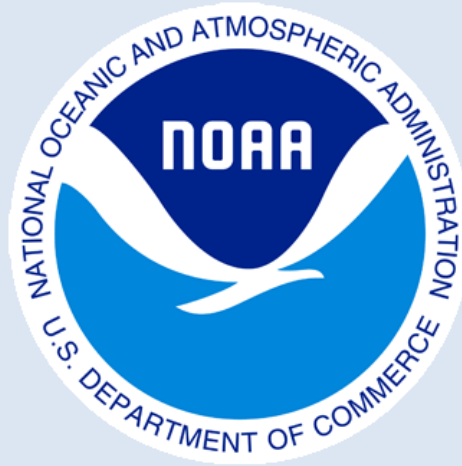
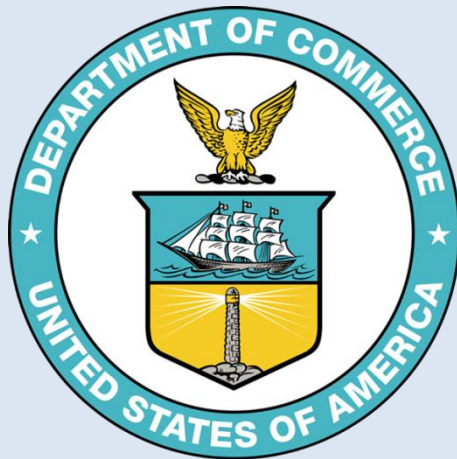


NOAA Climate Science & Services

Monthly Climate Update

A look back at May and a preview of July through August



Deke Arndt

Chief, Climate Monitoring Branch,
NOAA's National Climatic Data Center

Mark Svoboda

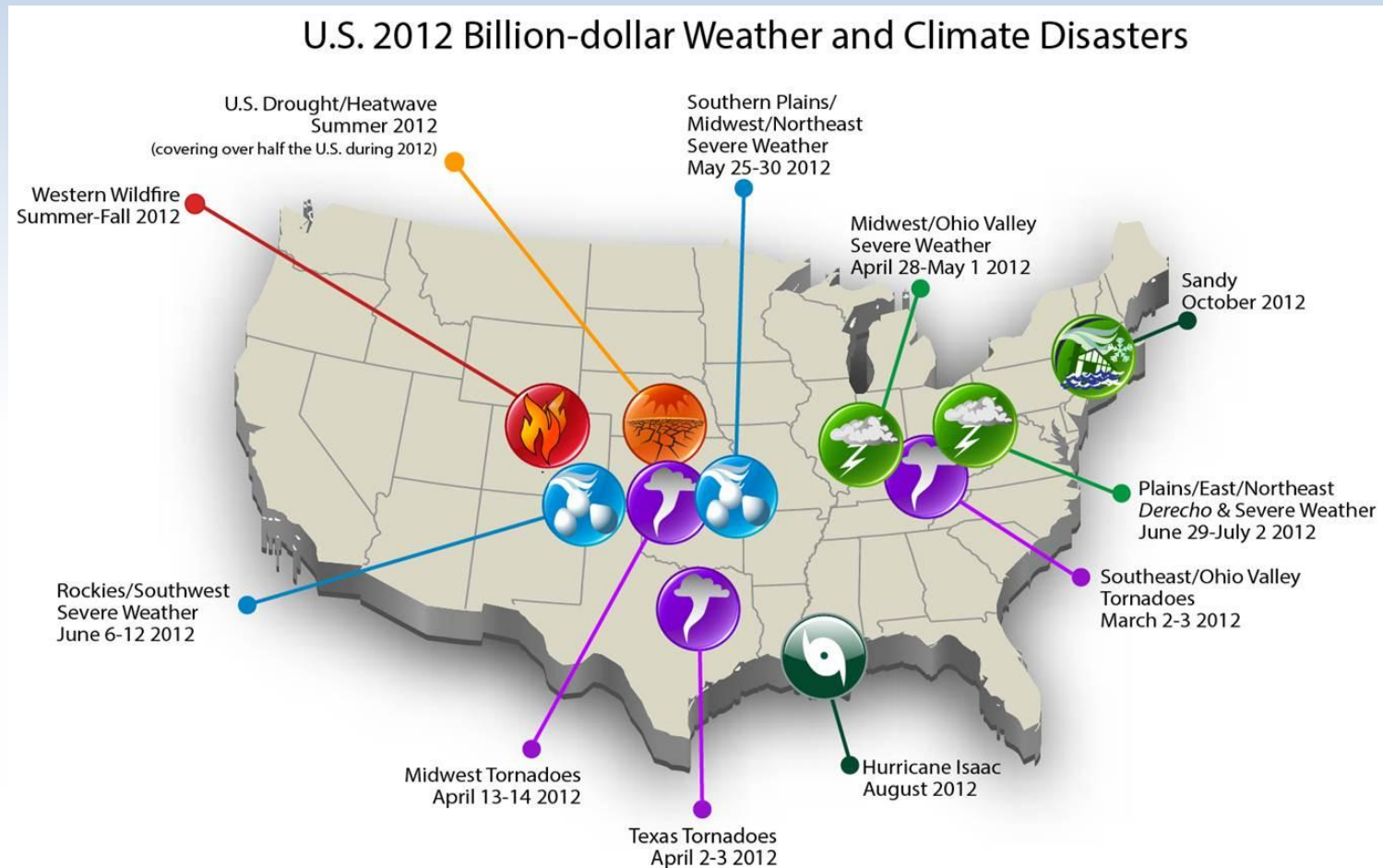
Climatologist, Monitoring Program Area Leader
National Drought Mitigation Center
University of Nebraska-Lincoln

Jon Gottschalck

Acting Chief, Operational Prediction Branch
NOAA's Climate Prediction Center

June 20, 2013

2012 U.S. Billion Dollar Disasters Update



<http://www.ncdc.noaa.gov/billions/>

Global Climate Highlights – May / Spring

Tied for 3rd warmest May on record

May Global Temperature and Precipitation:

- 1.19°F above the 20th century average
- Ties 1998, 2005 as 3rd warmest on record
- Land: 3rd warmest
- Oceans: 5th warmest
- Much of Central, Northern, Western Europe very wet

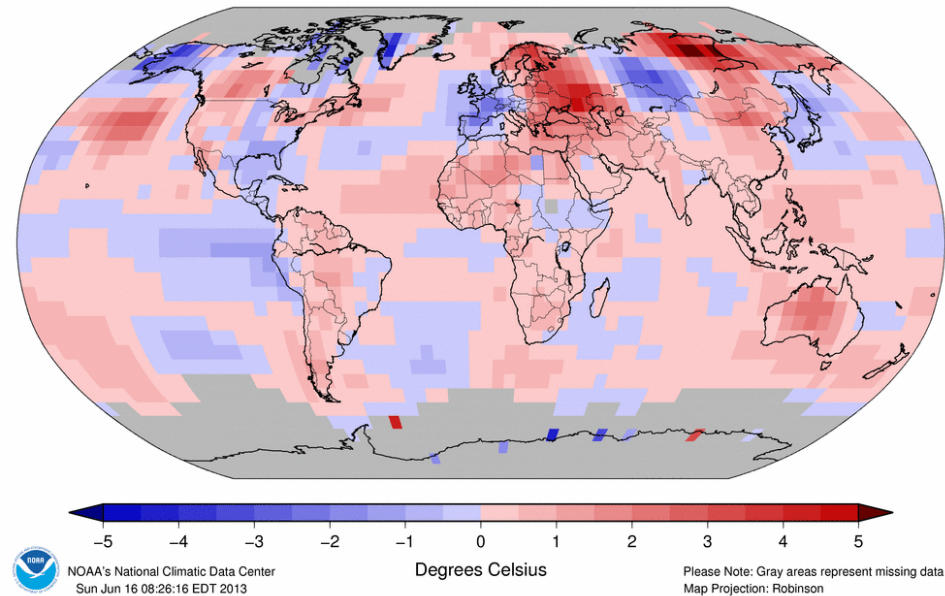
March-May Temperature:

- 1.06°F above the 20th century average
- Ties 2004 as 8th warmest on record

Year to Date (Jan-May) Temperature:

- 1.06°F above the 20th century average
- 8th warmest on record

Land & Ocean Temperature Anomalies May 2013
(with respect to a 1981–2010 base period)
Data Source: MLOST version 3.5.3



U.S. Climate Highlights - May

Warmer and wetter than average nationally

*Drought migrates westward; 2nd smallest snow cover extent**

Temperature: 0.9°F above average – 40th warmest

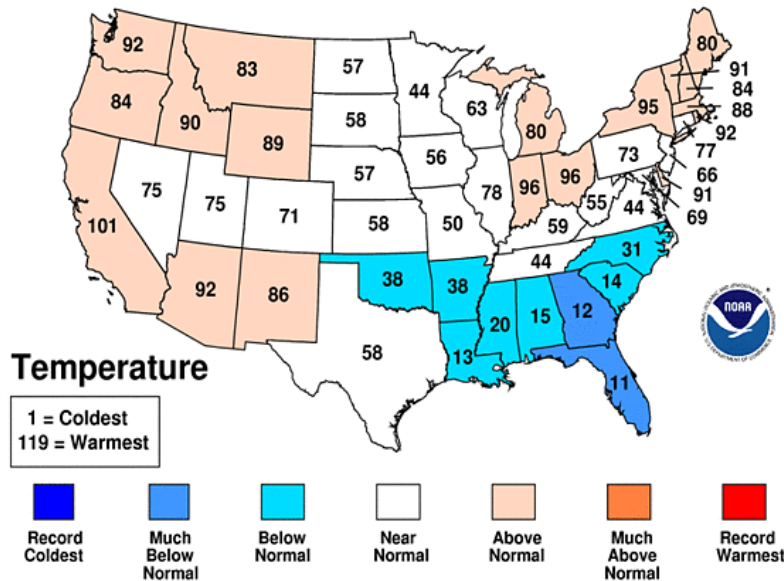
- **Cool:** Southeast US.
- **Warm:** Most of West . Great Lakes and New England, and most of the West.

Precipitation: 0.47" above average – 17th wettest

- **Dry:** Southwest, plus TX, ID and OH
- **Wet:** Midwest, Northern Plains, New England. Iowa wettest on record for 2nd consecutive month.

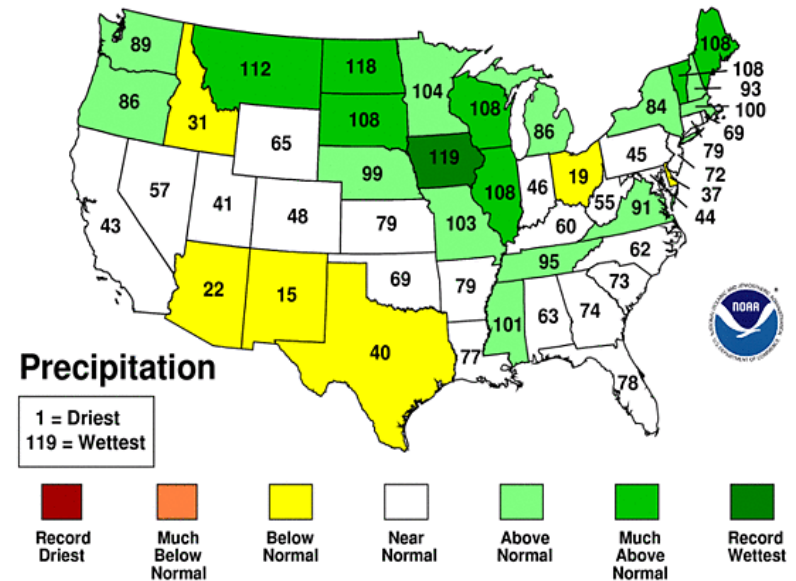
May 2013 Statewide Ranks

National Climatic Data Center/NESDIS/NOAA



May 2013 Statewide Ranks

National Climatic Data Center/NESDIS/NOAA



U.S. Climate Highlights - Spring

Nationally: cooler than average, near-normal precipitation

First season not warmer than normal since Spring 2011

Temperature: 0.5°F below average – 38th coolest

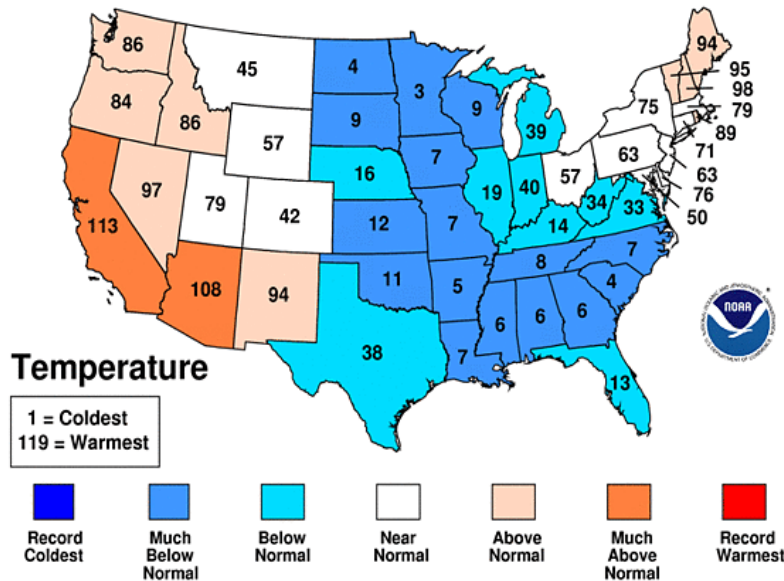
- **Cool:** Large swath of Central, Southeast US. 14 states had one of their ten coolest springs
- **Warm:** Much of the West.

Precipitation: 0.21" above average

- **Dry:** Southwest, west, mid-Atlantic and inland
- **Wet:** Upper Midwest, Northern Plains. Six states top ten wet (IA: wettest). NM and CA top ten dry

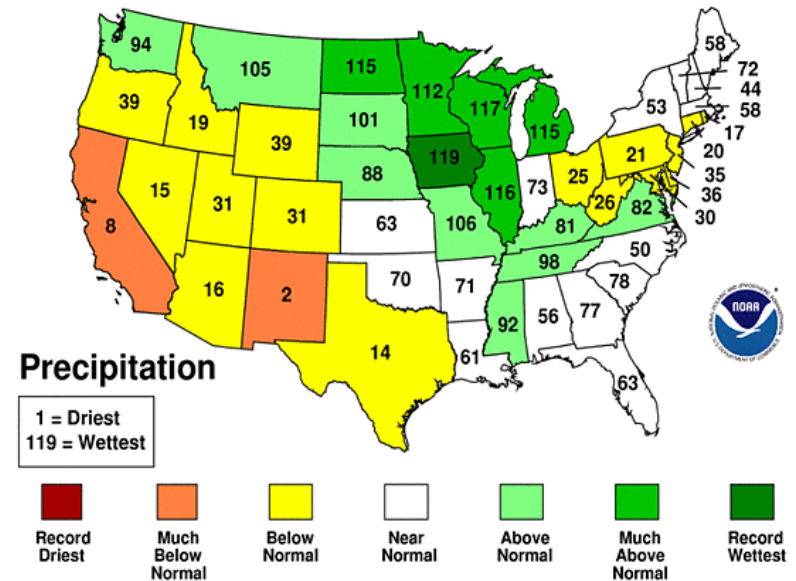
March-May 2013 Statewide Ranks

National Climatic Data Center/NESDIS/NOAA



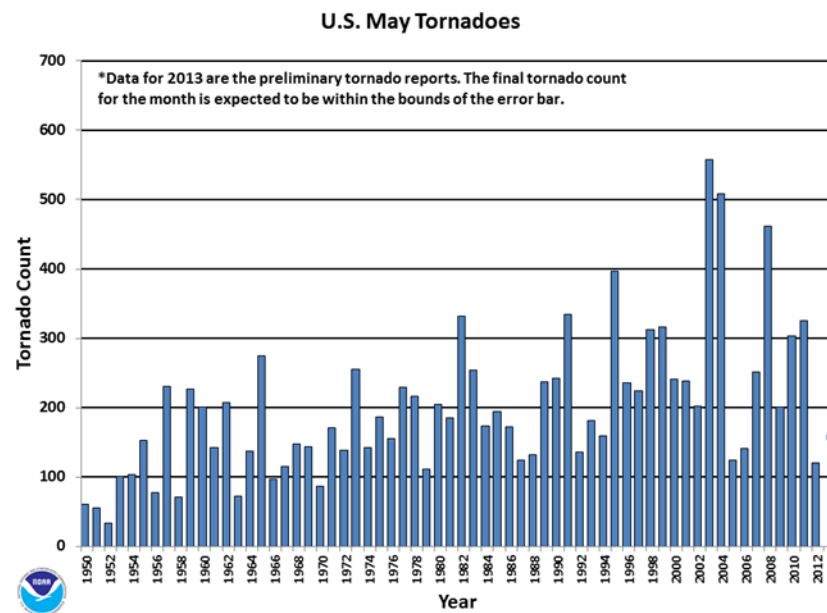
March-May 2013 Statewide Ranks

National Climatic Data Center/NESDIS/NOAA



Some Spring Paradoxes

- Despite more Spring snow cover than average, much fell as transient snow on the plains and Northeast
 - Spring average snow cover extent 8th largest on record, but May was 3rd smallest
 - Much of the West is still quite short on snowpack
- Despite two notable EF-5 tornado events, May tornado activity as a whole was average to below average

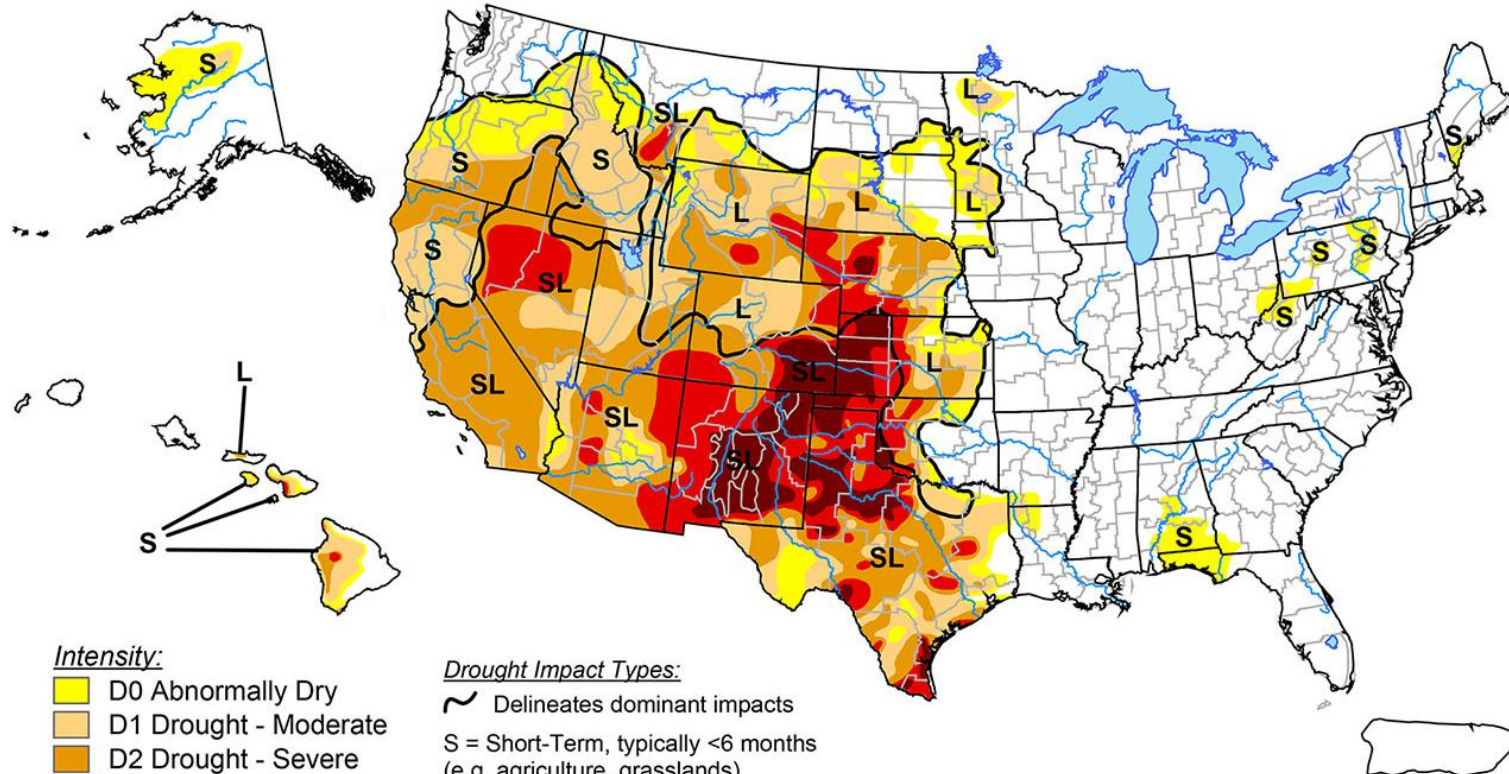


U.S. Drought Monitor

U.S. Drought Monitor

June 18, 2013

Valid 7 a.m. EDT



Intensity:

- D0 Abnormally Dry
- D1 Drought - Moderate
- D2 Drought - Severe
- D3 Drought - Extreme
- D4 Drought - Exceptional

Drought Impact Types:

- Delineates dominant impacts
- S = Short-Term, typically <6 months
(e.g. agriculture, grasslands)
- L = Long-Term, typically >6 months
(e.g. hydrology, ecology)

*The Drought Monitor focuses on broad-scale conditions.
Local conditions may vary. See accompanying text summary
for forecast statements.*

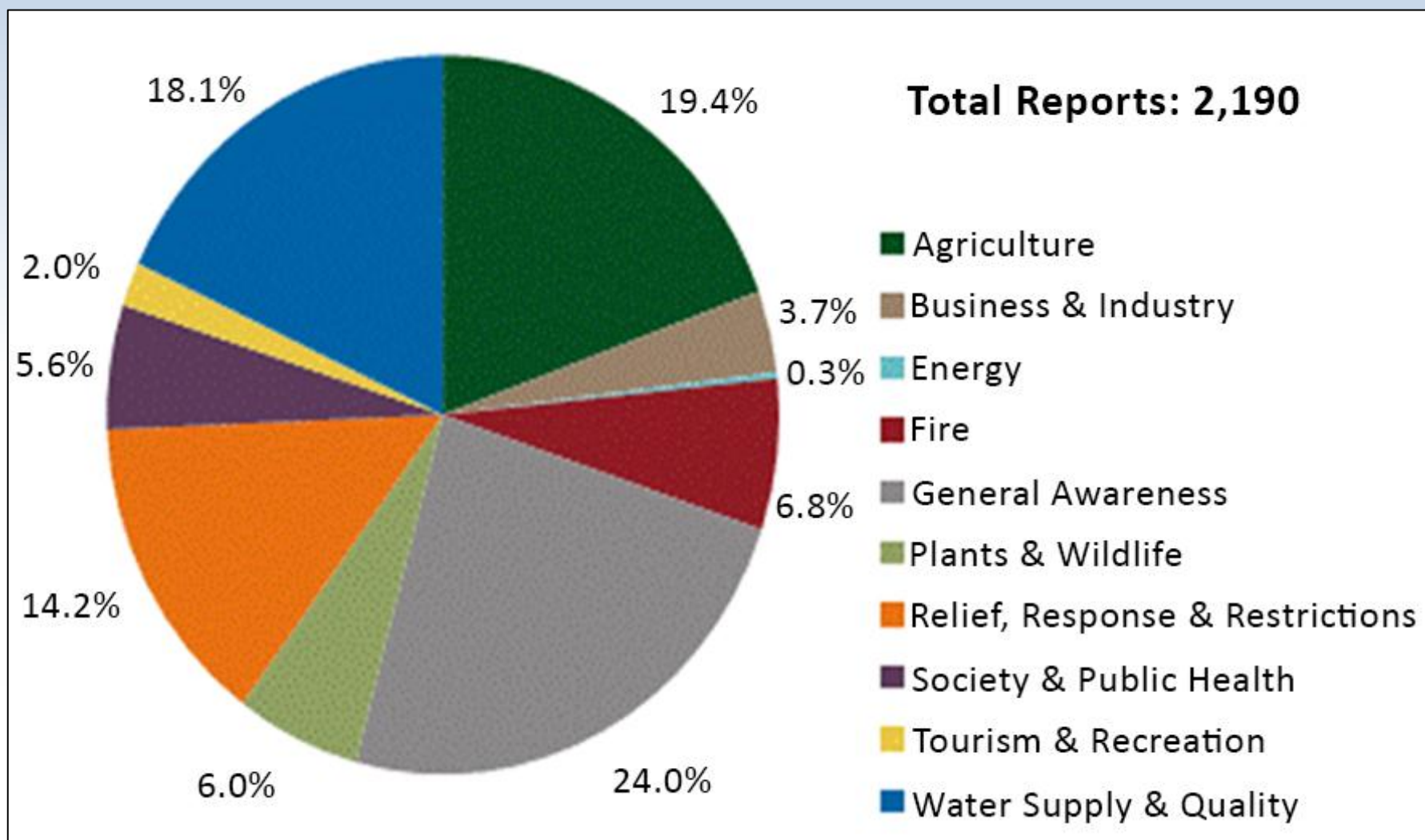
<http://droughtmonitor.unl.edu/>



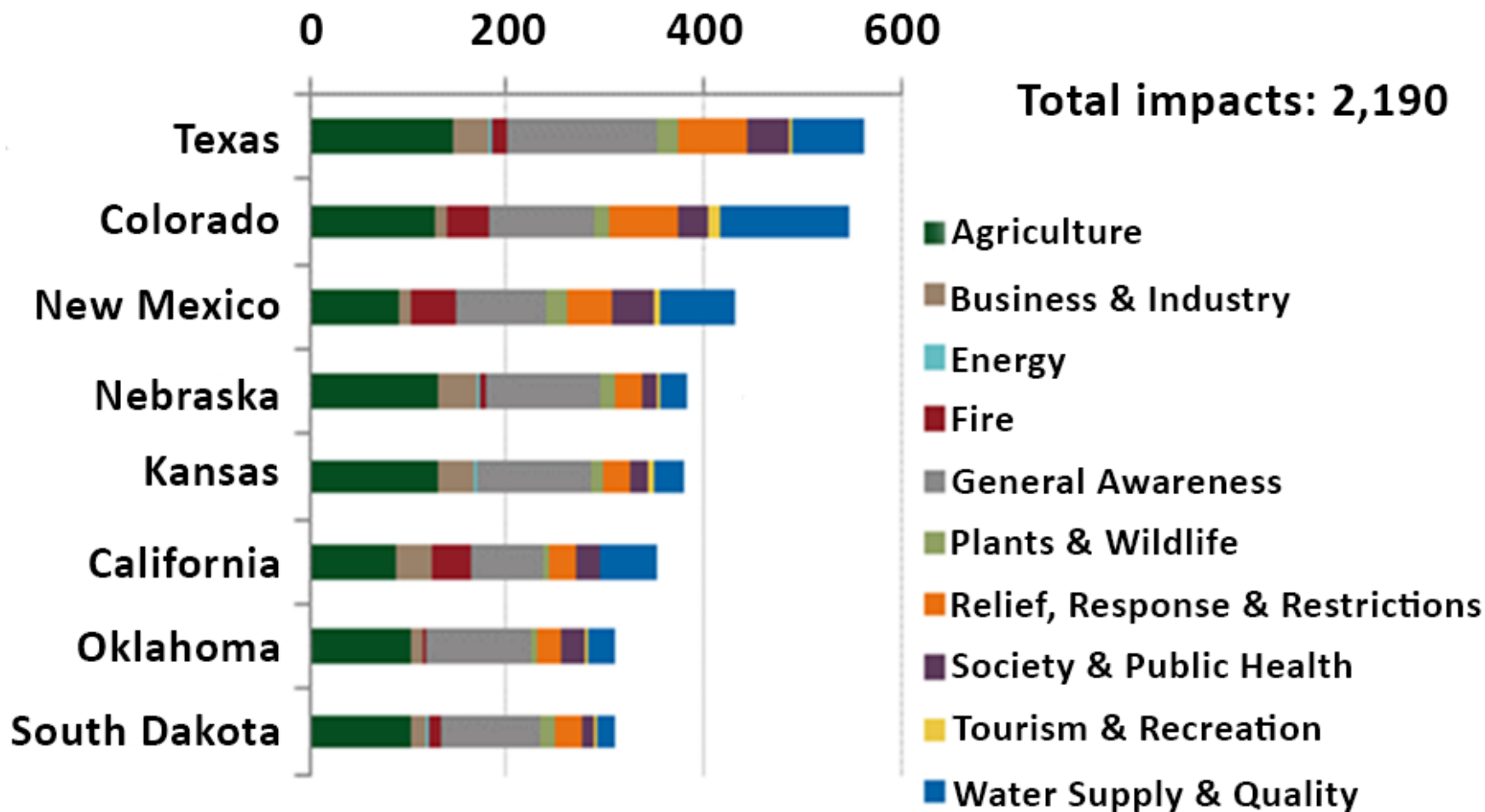
Released Thursday, June 20, 2013

Author: Mark Svoboda, National Drought Mitigation Center

Reports entered in Drought Impact Reporter in 2013



Reports entered in Drought Impact Reporter in 2013



Winter Wheat

by Percent,

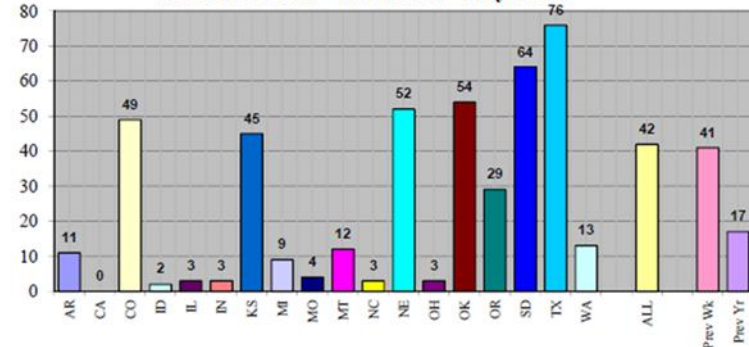
May 26, 2013

State	VP	P	F	G	EX	Poor to Very Poor	Good to Excellent
	Percent	Percent	Percent	Percent	Percent		
AR	5	6	33	48	8	11	56
CA	0	0	5	25	70	0	95
CO	29	20	33	16	2	49	18
ID	1	1	17	69	12	2	81
IL	1	2	25	59	13	3	72
IN	0	3	24	51	22	3	73
KS	24	21	27	24	4	45	28
MI	2	7	28	53	10	9	63
MO	1	3	27	57	12	4	69
MT	3	9	27	50	11	12	61
NC	0	3	25	61	11	3	72
NE	24	28	37	11	0	52	11
OH	1	2	26	56	15	3	71
OK	25	29	29	15	2	54	17
OR	12	17	36	34	1	29	35
SD	35	29	29	7	0	64	7
TX	49	27	17	6	1	76	7
WA	5	8	27	55	5	13	60
ALL	23	19	27	26	5	42	31
Prev Wk	21	20	28	27	4	41	31
Prev Yr	6	11	29	43	11	17	54

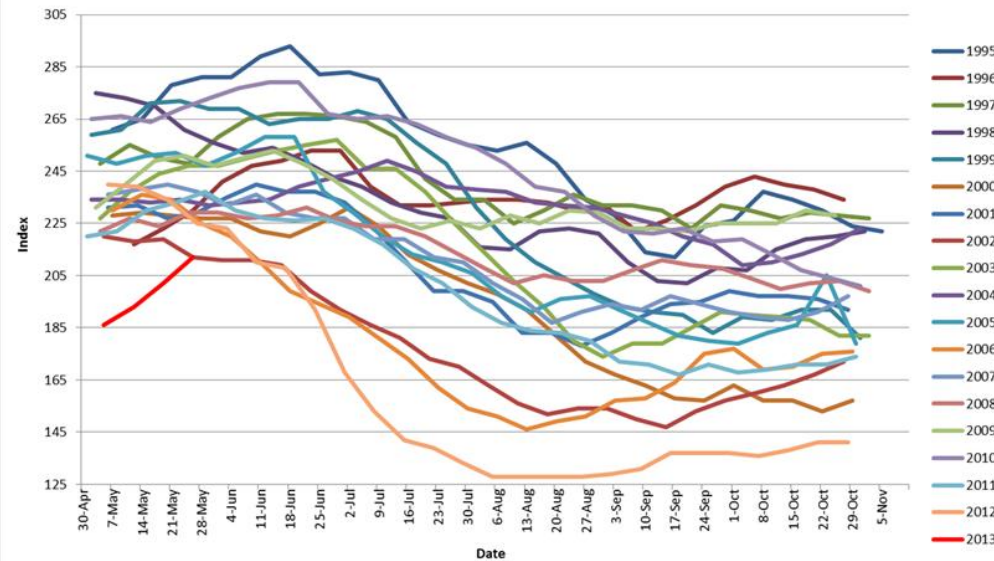
Nationally, poor to very poor went **up** 1 percentage points over last WEEK
Nationally, poor to very poor was **up** 25 percentage points from last YEAR

Nationally, good to excellent went **down** 0 percentage points over last WEEK
Nationally, good to excellent was **down** 23 percentage points from last YEAR

Winter Wheat - % Poor to Very Poor



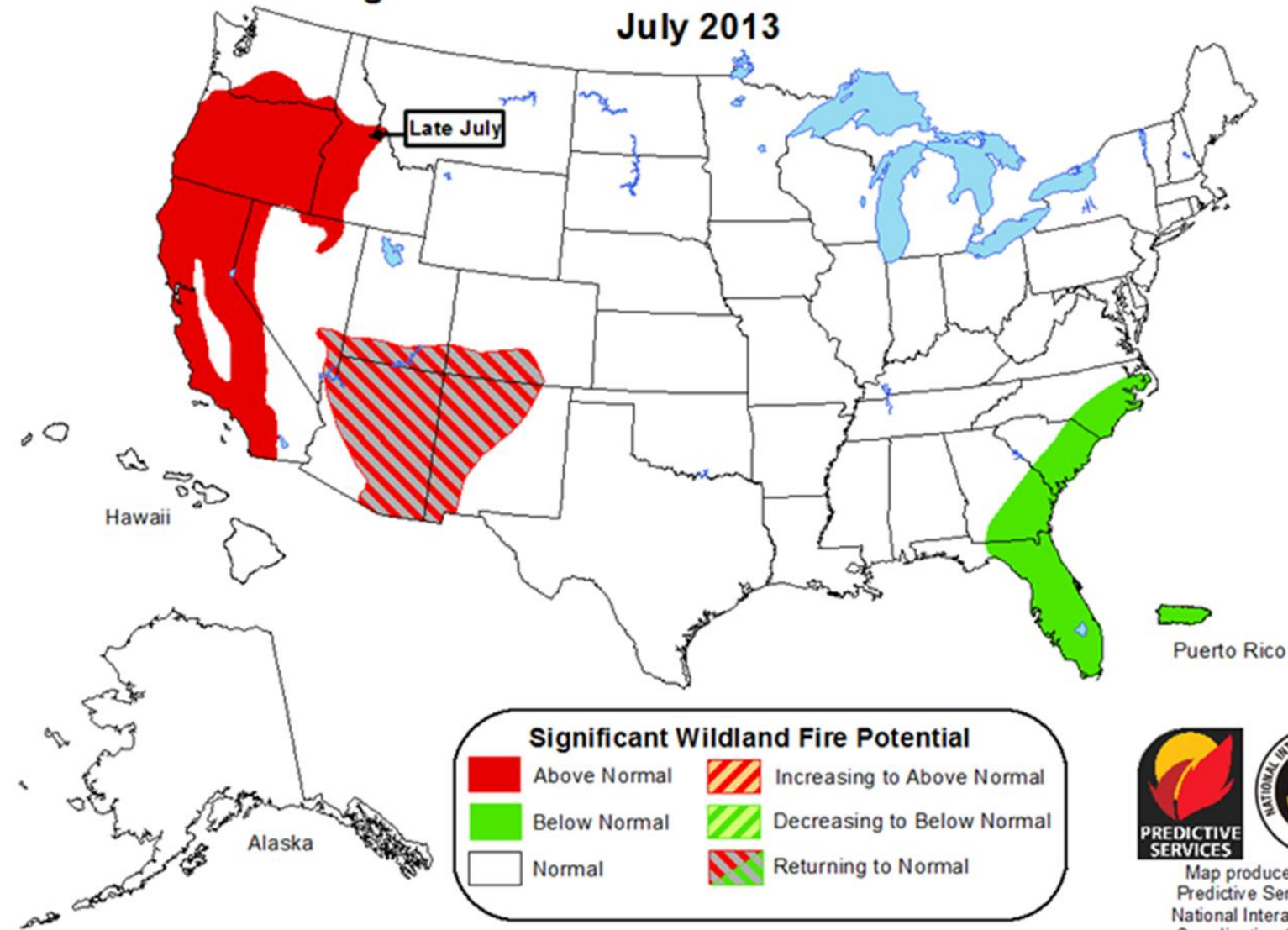
U.S. PASTURE AND RANGE Condition Index



June 20, 2013

Monthly Climate Webinar

Significant Wildland Fire Potential Outlook July 2013



Above normal significant wildland fire potential indicates a higher than usual likelihood that wildland fires will occur and/or become significant events. Wildland fires are still expected to occur during forecasted normal conditions as would usually be expected during the outlook period. Significant wildland fires are still possible but less likely than usual during forecasted below normal periods.



Map produced by
Predictive Services,
National Interagency
Coordination Center
Boise, Idaho
Issued June 1, 2013
Next issuance July 1, 2013

Noteworthy Drought Impacts from 2013

- The number of **cattle in the U.S.** fell to 89.3 million as of Jan. 1, 2013, a **drop of 2 percent over the last year**, according to the U.S. Department of Agriculture, as drought and limited feed and water supplies forced ranchers to cull cattle.
- **Hay stocks** nationwide on May 1 were 14.2 million tons, the **smallest amount since 2007** and the least amount on hand on May 1 in data going back to 1973. May 1 hay stocks were 36 percent below the 10-year average.
- **Pasture and range** conditions are worse this year than last in many areas.
- **Crop insurance payouts for 2012 have reached \$17.36 billion** according to Federal Crop Insurance Corporation, Crop Year Statistics for 2012, as of: June 17, 2013.

Noteworthy Drought Impacts from 2013 (continued)

- **Beef prices are at record highs** as drought keeps feed prices high and contributes to the shrinking of the cattle herd to the lowest level since 1952. The average price of steak is \$4.81 per pound, while ground beef sells for \$3.51 per pound. Prices peaked just before Memorial Day weekend with the average wholesale price of beef at \$2.06 on May 23, compared with \$1.94 the previous year, according to a market analyst with Urner Barry, a publisher of market news on agricultural commodities, based in Bayville, N.J.
- Second consecutive winter of **low snow pack** across most of the Rockies.
- Worries about the **winter wheat crop**.
- **Wildfires** in California, Colorado, New Mexico, Arizona. High risk for many in the West as monsoon season approaches.

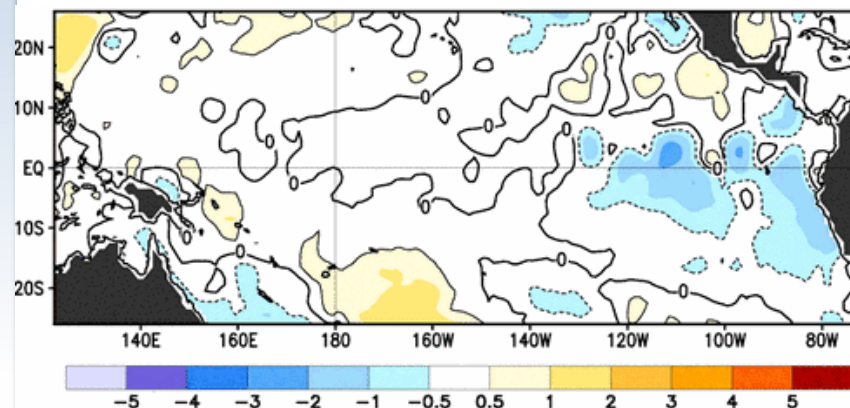
El Niño/La Niña Southern Oscillation (ENSO)

Sea Surface Temperature Update

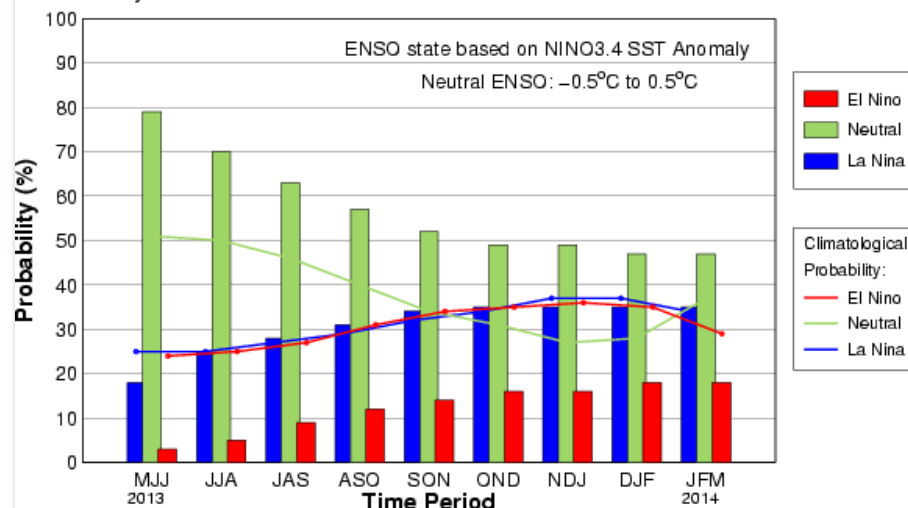
- Departures from normal remain small across the western and central Pacific
- Cooler than normal water is evident in the eastern Pacific
- ENSO neutral conditions continue
- ENSO neutral is favored through at least summer 2013

Average SST Anomalies

9 Jun 2013 – 15 Jun 2013

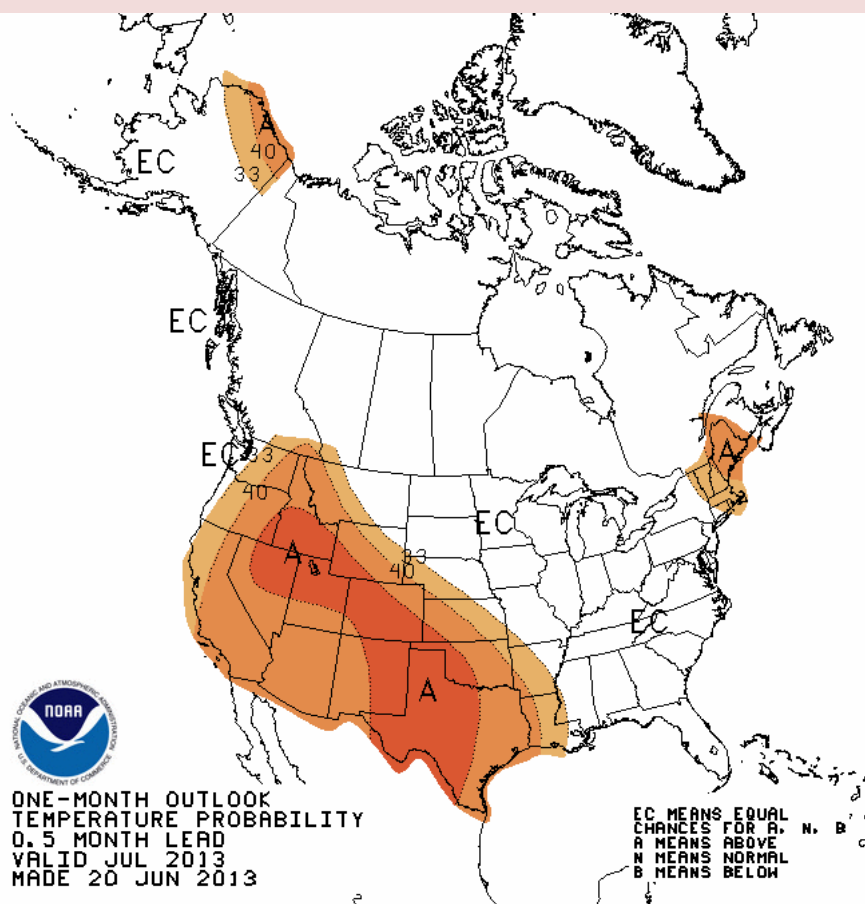


Early-Jun CPC/IRI Consensus Probabilistic ENSO Forecast

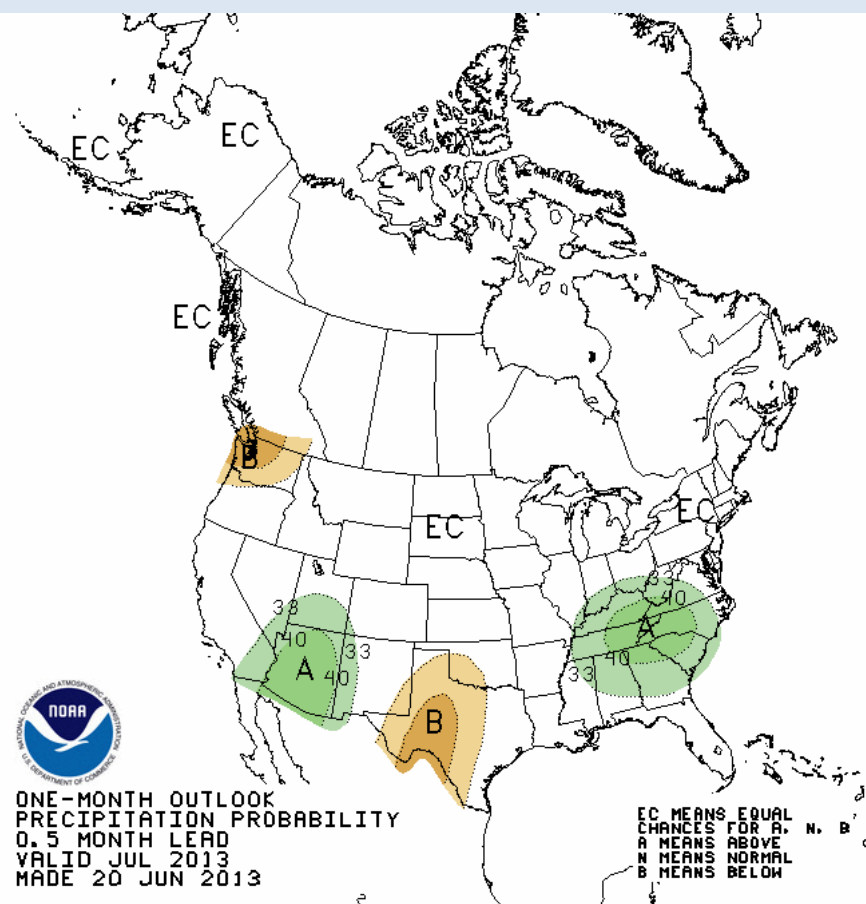


Monthly Forecast (July)

July Average Temperature Probability

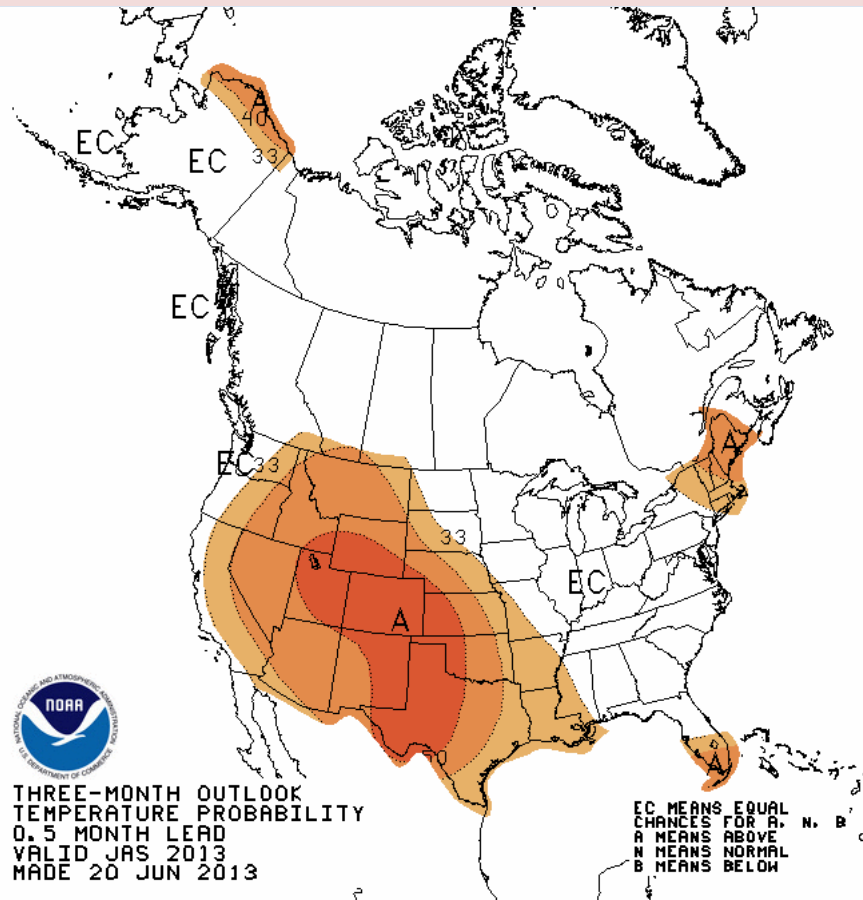


July Total Precipitation Probability

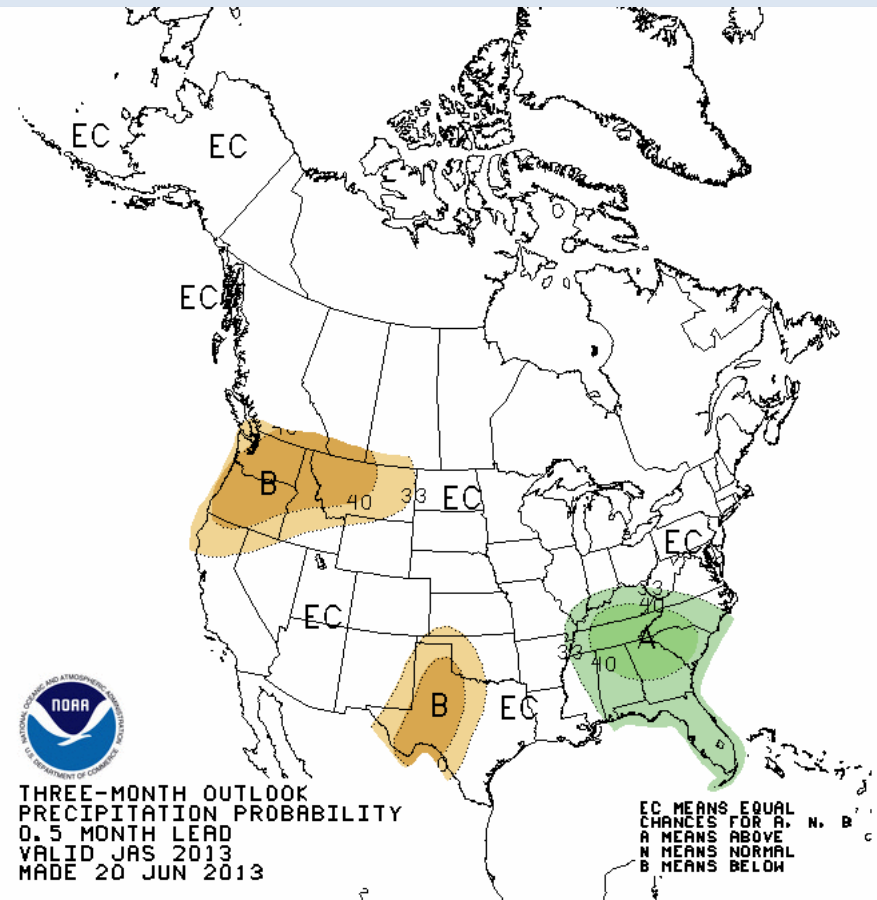


Seasonal Forecast (Jul-Aug-Sep)

Jul-Aug-Sep Average Temperature Probability

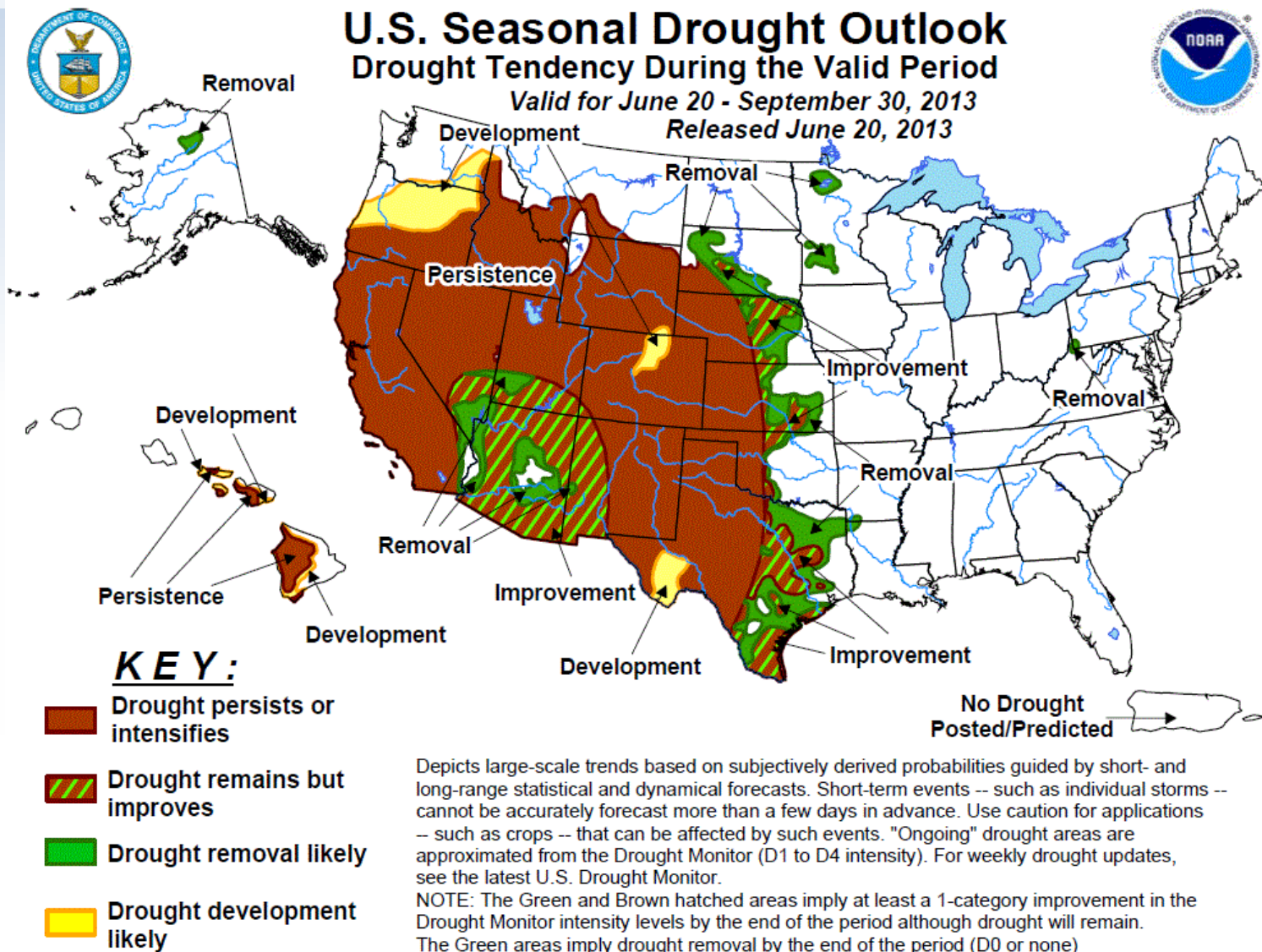


Jul-Aug-Sep Total Precipitation Probability

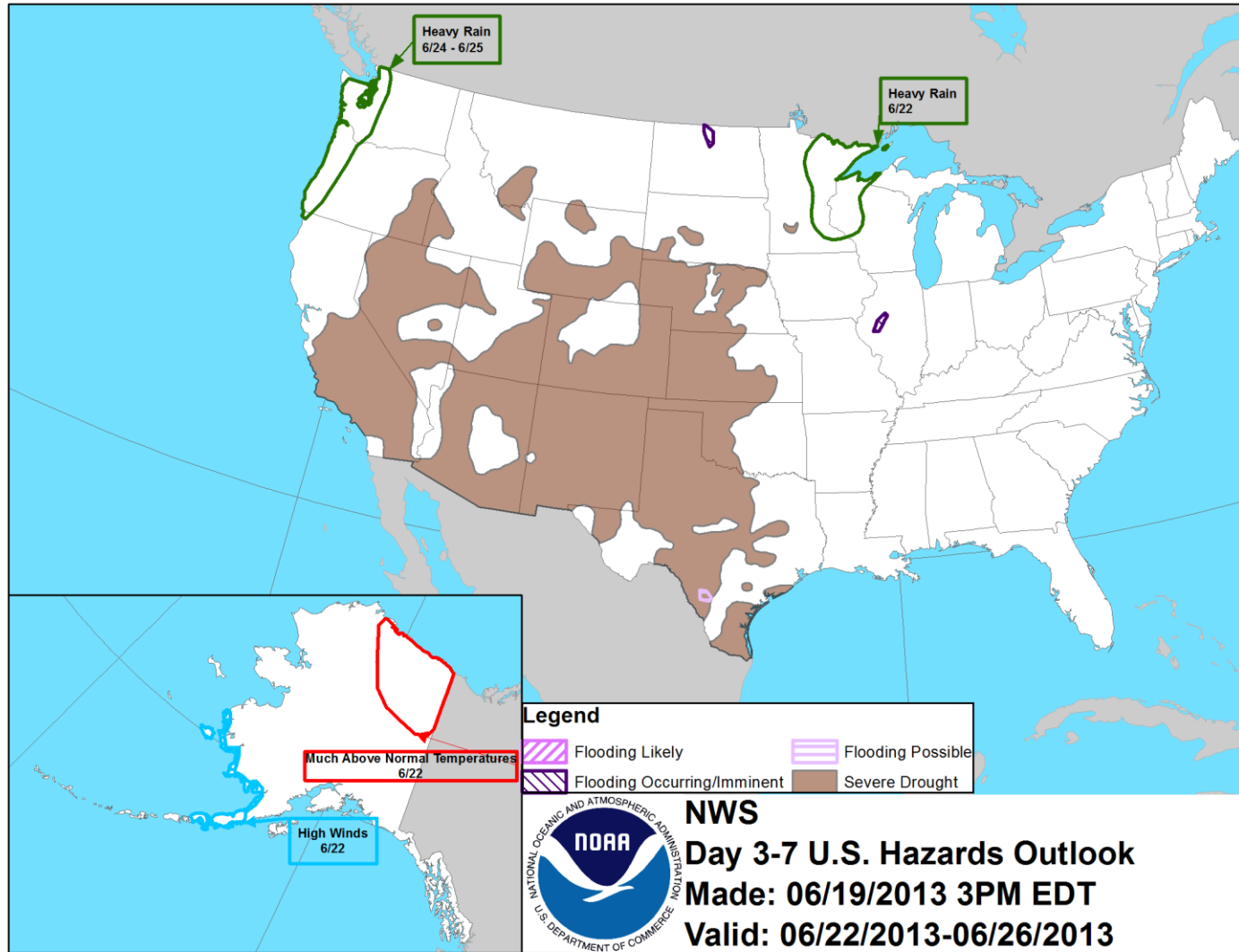


U.S. Drought Outlook

3-month forecast



U.S. Hazards Outlook



For More Information



Today's Presentation:

- <http://www.ncdc.noaa.gov/sotc/briefings>

NOAA's National Climatic Data Center: www.ncdc.noaa.gov

- Monthly climate reports (U.S. & Global): www.ncdc.noaa.gov/sotc/

NOAA's Climate Prediction Center: www.cpc.ncep.noaa.gov

National Drought Mitigation Center: <http://drought.unl.edu/>

U.S. Drought Monitor: <http://drought.gov>

Climate Portal: www.climate.gov

Media Contacts:

- Brady.Phillips@noaa.gov, 202-407-1298 (NOAA/Comms)
- Katy.Vincent@noaa.gov, 828-257-3136 (NOAA/NCDC)